WHAT IS CLAIMED IS:

1. A driving apparatus for a liquid crystal display, comprising:

a first multiplexor array to perform time-division on input pixel data to supply time-divided pixel data having a horizontal period divided into four 1/4 periods;

a digital-analog conversion array to convert the time-divided pixel data pixel voltage signals; and

a demultiplexor array to drive data lines by performing time-division on the pixel voltage signal by the 1/4 period.

2. The driving apparatus according to claim 1, further comprising:

a shift register array to sequentially generate a sampling signal;

a latch array to sequentially latch the pixel data by designated units in response to the sampling signal such that the latched data is simultaneously output to the first multiplexor array; and

a buffer array to buffer the pixel voltage signal and to supply the buffered pixel voltage signal to the demultiplexor array.

3. The driving apparatus according to claim 1, wherein the first multiplexor array includes at least N (N being a positive integer) of multiplexors and performs time-division on a plurality of input pixel data to supply the time-divided pixel data, wherein the digital-analog conversion array converts the time-divided pixel data into the pixel voltage signals, and wherein the demultiplexor array includes at least N of demultiplexors and supplies the pixel voltage signals into a plurality of data lines.

4. The driving apparatus according to claim 3, wherein the digital-analog conversion array includes at least N+1 positive and negative digital-analog converters to convert the time-divided pixel data into the pixel voltage signals, the positive and negative digital-analog converters being alternately arranged.

5. The driving apparatus according to claim 4, further comprising:

a second multiplexor array to determine a proceeding path of the time-divided pixel data in response to an input polarity control signal to supply the time-divided pixel data to at least N of the positive and negative digital-analog converters among the at least N+1 positive and negative digital-analog converters; and

a third multiplexor array to determine a proceeding path of the pixel voltage signal in response to the polarity control signal to supply the pixel voltage signal to the demultiplexor array.

6. The driving apparatus according to claim 5, wherein the second multiplexor array includes at least N-1 second multiplexors to select any one of the outputs of at least two of the first multiplexors,

wherein the third multiplexor array includes at least N third multiplexors to select any one of the outputs of at least two of the digital-analog converters, and

wherein the output of each of the first multiplexors is commonly input to at least two of the second multiplexors, and

wherein the output of each of the digital-analog converters is commonly input to at least two of the third multiplexors.

7. The driving apparatus according to claim 3, wherein among the at least N first multiplexors, an odd-numbered multiplexor performs time-division on odd-numbered pixel data in response to an input first selection control signal, and an even-numbered multiplexor performs time-division on even-numbered pixel data in response to an input second selection control signal, thereby outputting the time-divided pixel data.

8. The driving apparatus according to claim 7, wherein among the at least N demultiplexors, an odd-numbered demultiplexor drives odd-numbered data lines on a time-division basis in response to the first selection control signal, and an even-numbered demultiplexor drives even-numbered data lines on a time-division basis in response to the second selection control signal.

9. The driving apparatus according to claim 8, wherein the first and second selection control signals have a logic state contrary to each other and the logic state is inverted at least for each 1/4 horizontal period.

10. The driving apparatus according to claim 9, wherein the first multiplexor array and the demultiplexor array supply the time-divided pixel data and pixel voltage signal as alternately changing supply sequences of the time-divided pixel data and pixel voltage signals for each specific unit in response to the first and second selection control signals.

11. The driving apparatus according to claim 10, wherein the first multiplexor array and the demultiplexor array change supply sequences of the time-divided pixel data and pixel voltage signals for each frame in response to the first and second selection control signals.

12. The driving apparatus according to claim 11, wherein polarities of the first and second selection control signals are inverted for each frame.

13. The driving apparatus according to claim 10, wherein the first multiplexor array and the demultiplexor array change supply sequences of the time-divided pixel data and pixel voltage signals at least for each line in response to the first and second selection control signals.

14. The driving apparatus according to claim 13, wherein polarities of the first and second selection control signals are inverted at least for each line.

15. The driving apparatus according to claim 10, wherein the first multiplexor array and the demultiplexor array change supply sequences of the time-divided pixel data and pixel voltage signals for each second line and for each frame in response to the first and second selection control signals.

16. The driving apparatus according to claim 15, wherein polarities of the first and second selection control signals are inverted for each second line and for each frame.

17. The driving apparatus according to claim 10, wherein the first multiplexor array and the demultiplexor array change supply sequences of the time-divided pixel data and pixel voltage signals at least for each line and for each frame in response to the first and second selection control signals.

18. The driving apparatus according to claim 1, wherein the same data is supplied to any one of the data lines during first and third ones of the 1/4 periods of the horizontal period.

19. The driving apparatus according to claim 1, wherein the same data is supplied to any one of the data lines during second and fourth ones of the 1/4 periods of the horizontal period.

20. A driving method of a liquid crystal display, comprising the steps of:

performing time-division on input pixel data to supply time-divided pixel data having a horizontal period divided into four 1/4 periods;

converting the time-divided pixel data into pixel voltage signals; and

performing time-division on the pixel voltage signal to supply the time-divided pixel voltage signal to data lines of the liquid crystal display by the 1/4 period.

21. The driving method according to claim 20, wherein, in the step of performing time-division on the input pixel data, the pixel data supplied to a specific data line are output only during an odd-numbered or an even-numbered 1/4 period of the horizontal period.

22. The driving method according to claim 21, wherein the time-divided pixel data are converted into the pixel voltage signals to be supplied to the specific data line during the odd-numbered or the even-numbered 1/4 period of the horizontal period.

23. The driving method according to claim 20, wherein, in the step of converting the time-divided pixel data into pixel voltage signals, each of the pixel data is converted into the pixel voltage signal with a polarity different from adjacent pixel data.

24. The driving method according to claim 20, wherein a supply sequence of the time-divided pixel data is alternately changed for each specific unit in the step of performing time-division on the pixel data; and a supply sequence of the pixel voltage signals is alternately changed for each specific unit in the step of driving the data lines on the time-division basis.

25. The driving method according to claim 24, wherein the supply sequences of the time-divided pixel data and pixel voltage signals are alternately changed for each frame.

26. The driving method according to claim 24, wherein the supply sequences of the time-divided pixel data and pixel voltage signals are changed at least for each line.

27. The driving method according to claim 24, wherein the supply sequence of the time-divided pixel data and the pixel voltage signals are changed at least for each line and for each frame.

28. A liquid crystal display, comprising:

a liquid crystal panel; and

a driving apparatus connected to the liquid crystal panel, the driving apparatus including:

a first multiplexor array to perform time-division on input pixel data to supply time-divided pixel data having a horizontal period divided into four 1/4 periods;

a digital-analog conversion array to convert the time-divided pixel data pixel voltage signals; and

a demultiplexor array to drive data lines by performing time-division on the pixel voltage signal by the 1/4 period.

29. A driving apparatus for a liquid crystal display, comprising:

means for performing time-division on input pixel data to supply time-divided pixel data having a horizontal period divided into four 1/4 periods;

means for converting the time-divided pixel data into pixel voltage signals; and

means for performing time-division on the pixel voltage signal to supply the time-divided pixel voltage signal to data lines of the liquid crystal display by the 1/4 period.